REMARKS

Claims 1, 8, 15, and 16 have been amended. Claims 1-4 and 6-16 are currently pending herein. Reconsideration and further examination is respectfully requested.

Drawings

The drawings were objected to under 37 CFR 1.83(a). The cited limitation "identifying commonality between the plurality of addresses" has been deleted from the claims. This objection is thereby obviated.

The drawings were further objected to under 37 CFR 1.83(a) over the cited "forwarding equivalence class for a routing table entry". This objection is respectfully traversed. The Applicants set forth in their specification at page 28 lines 22 – 24 that a regular expression may be used in a routing table to consolidate routing information for addresses belonging to a particular Forwarding Equivalence Class (FEC). It is know by those skilled in the art of networking that an FEC groups addresses together; for example, IP addresses having a common destination may share an FEC. The Applicants' Figures 9, 12, and 14 show how regular expressions are used to represent groups of addresses in a table. The Application and drawings are thus sufficient to teach one skilled in the art how to use regular expressions in a table to represent FECs. The Applicants therefore respectfully request that this objection be withdrawn.

Claim Rejections – 35 USC § 112

Claims 1, 8, and 15 were rejected under 35 U.S.C. 112, 1st paragraph, as failing to comply with the enablement requirement, because the specific phrase "identifying commonality between the plurality of addresses" is not recited in the specification. Claims 1, 8, and 15 have been amended to delete this limitation. The objection is thereby obviated.

The limitation of "selecting at least one regular expression character having a predetermined meaning which represents the identified commonality between the addresses" was also objected to as failing to comply with the enablement requirement. Claims 1, 8, and 15 have been amended to obviate this rejection. For example, claim 1 now recites: "selecting at least one regular expression character having a predetermined meaning which represents commonality between at least one character of each address in the plurality of addresses; generating a single address that represents the plurality of addresses by inserting the selected at least one regular expression character in place of the at least one character of the plurality of addresses". It is thereby clear that the commonality between addresses occurs in one or more characters (which may be at any position in the address) and that the regular expression character is inserted to replace those characters.

Claim Rejections – 35 USC § 102

Claims 1, 8 – 10, 13, 15, and 16 were rejected under 35 U.S.C. 102(e) as being anticipated by Romanov, U.S. Patent No. 6,434,144. This rejection is respectfully traversed.

The Applicant's exemplary claim 1 recites:

> "A method for representing a plurality of addresses in an address table in a communication system, the method comprising the steps of:
> selecting at least one regular expression character having a predetermined meaning which represents commonality between at least one character of each address in the plurality of addresses;
> generating a single address that represents the plurality of addresses by inserting the selected at least one regular expression character in place of the at least one character of the plurality of addresses, thereby generating a group address; and
> storing the generated group address in the address table,
> whereby a plurality of addresses are represented by a single group address entry in the address table."

The Applicants thus use regular expression characters to replace common portions of addresses to generate a group address. The group address containing the regular expression character is stored in the address table.

In contrast, Romanov discloses a prefix database. The purpose of the prefix database is to aid longest prefix matching of IP addresses. A prefix is "a sequence of bits representing the most significant bits of an IP address, such as the portion of an IP address corresponding to a second-level domain" (Romanov Col. 1 lines 38 – 41.) Thus a prefix is a portion of an address, not an address. There may be several prefixes in a given prefix database that match a given IP address.

In Romanov, a particular form of expression is used to represent a prefix – that is, a prefix is expressed as a sequence of four bytes separated by dots, followed by a slash and the number of bits in the prefix. This expression is used for convenience. Since the prefix is not an address, one must know its length, and the number following the slash represents this. It is important to

note that this form of expression is NOT what is stored in the prefix database. The prefix databases of Romanov store "prefix IDs" that are numerical representations of the prefix expression. See Romanov Col. 11 table 2, table 3, Col. 12 table 4. Contents of the tables do not include the prefix expression, they include numerical identifiers or Prefix IDs. These numerical identifiers are not addresses. In particular, they are not "group addresses" representing a plurality of addresses by "inserting the ... regular expression character in place of the at least one character of the plurality of addresses" as the Applicants have claimed. (Note that in the tables of Romanov, prefix expressions are comments – not stored table data.)

It is thus clear that Romanov fails to teach or suggest the Applicants' claimed method for representing a plurality of addresses in an address table including the steps of "selecting at least one regular expression character having a predetermined meaning which represents commonality between at least one character of each address in the plurality of addresses; generating a single address that represents the plurality of addresses by inserting the selected at least one regular expression character in place of the at least one character of the plurality of addresses, thereby generating a group address; and storing the generated group address in the address table." Romanov simply does not replace portions of addresses to generate a group address and then store that address in an address table. The Applicants therefore respectfully assert that Claim 1 is in condition for allowance. Claims 8 and 15 include limitations similar to those of claim 1; therefore, claims 8 – 10 and 15 – 16 are in condition for allowance for the same reasons as set forth with regard to claim 1.

Claim Rejections – 35 USC § 103

Claims 2 and 3 were rejected under 35 U.S.C 103(a) as being unpatentable over Romanov in view of Ankney et al., U.S. Patent No. 5,113,499. This rejection is respectfully traversed.

Claims 2 and 3 depend from claim 1. Claim 1 is patentable over Romanov for reasons previously set forth. Ankney adds nothing further to correct the deficiencies of Romanov; thus, Romanov and Ankney, taken alone or in combination, fail to teach or suggest the Applicants' claimed invention. The Applicants therefore respectfully assert that claims 2 and 3 are in condition for allowance.

Claim 4 was rejected under 35 U.S.C. 103(a) as being unpatentable over Romanov in view of Beser, U.S. Patent No. 6,189,102. This rejection is respectfully traversed. Claim 1 is patentable over Romanov for reasons previously set forth. Beser adds nothing further to correct the deficiencies of Romanov; thus, Romanov and Beser, taken alone or in combination, fail to teach or suggest the Applicants' claimed invention. The Applicants therefore respectfully assert that claim 4 is in condition for allowance.

Claims 7, 11, and 14 were rejected under 35 U.S.C 103(a) as being unpatentable over Romanov in view of Beser and further in view of Belser et al., U.S. Patent No. 6,151,324. This rejection is respectfully traversed. Claims 1 and 8 are patentable over Romanov for reasons

previously set forth. Belser adds nothing further to correct the deficiencies of Romanov and Beser; thus, Romanov Beser, and Belser, taken alone or in combination, fail to teach or suggest the Applicants' claimed invention. The Applicants therefore respectfully assert that claims 7, 11, and 14 are in condition for allowance.

Claims 6 and 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Romanov in view of Peacock, U.S. Patent No. 6,381,650. This rejection is respectfully traversed. Claims 1 and 8 are patentable over Romanov for reasons previously set forth. Peacock adds nothing further to correct the deficiencies of Romanov; thus, Romanov and Peacock, taken alone or in combination, fail to teach or suggest the Applicants' claimed invention. The Applicants therefore respectfully assert that claims 6 and 12 are in condition for allowance.

Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Applicants' Attorney at 978-264-6664 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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